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Technical Report on the Design of a Heart Rate Monitor for Infants

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TECHNICAL REPORT ON THE DESIGN OF A HEART RATE MONITOR FOR INFANTS

for

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Wire leads which carry the heart-beat wave to the monitor are often pulled away from the infant. When the leads are pulled away from the infant an alarm is activated when actually the infant is in no danger. I designed a heart rate monitor which will not use these wire leads. The monitor I designed transmits a signal from the infant to the monitor each time a heart beat is detected. A receiver detects this transmission and outputs a five volt pulse. My microprocessor sees this five volt pulse as a heart beat and counts these beats. The microprocessor then determines the heart rate and compares it to a critical rate. If the actual rate is below the critical rate, then the rate is displayed and an alarm is activated, otherwise the rate is displayed and the microprocessor continues to monitor the rate.